



FAMILY WELFARE

METHODS

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ICON.**

INTRODUCTION

- ❑ Contraceptive methods are, by definition, **preventive methods to help women avoid unwanted pregnancies**. They include all **temporary and permanent** measures to prevent pregnancy resulting from coitus.
- ❑ Contraceptive that is **safe, effective, acceptable, inexpensive, Reversible, simple to administer, independent of coitus, long-lasting enough to obviate frequent administration** and requiring little or no medical supervision.

OBJECTIVES

- To avoid unwanted births
- To bring about wanted births
- To regulate the intervals between pregnancies
- To control the time at which births occur in relation to the ages of the parent
- To determine the number of children in the family

SCOPE OF FAMILY PLANNING

- Proper spacing and limitations of birth
- Advise on sterility
- Education for parenthood
- Screening for pathological conditions related to reproductive system
- Pre marital consultation
- Carrying out pregnancy test
- Preparation of couples for the arrival of their first child

CLASSIFICATION:

- **I. Spacing methods:**
 - **1. Barrier methods**
 - Physical methods
 - Chemical methods
 - Combined methods
 - **2. Intra-Uterine devices**
 - **3. Hormonal methods**
 - **4. Post-conceptual methods**
 - **5. Miscellaneous**



– **II. Terminal methods:**

– **1. Male sterilization**

– **2. Female sterilization**

Classification - contraceptive methods

Spacing methods

Barrier

- Physical, Chemical, Combined

IUCD

- First, Second and Third generation

Hormonal

- OCP, POP, male pills, Depot injection, Implants

Misc

- Abstinence, interruptus, rhythm, cervical mucus, BBT, symptothermic, LAM

Emergency

- Oral pills, IUCD

Post conception

- MTP, Menstrual regulation, induction

Terminal

- Male and female sterilization

Barrier

Male condom



Female condom



Vaginal cap, diaphragm



Spermicidal jelly

Combined – cap + spermicide



I.U.D GENERATIONS

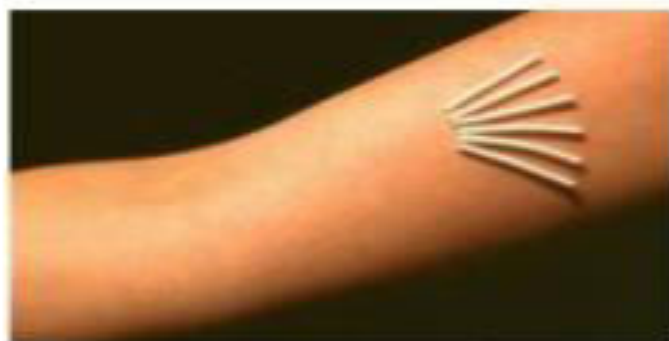


Hormonal

Combined OCP – Mala N, D



Centchroman



Implants



Vaginal ring



Depot injections

Natural

Abstinence



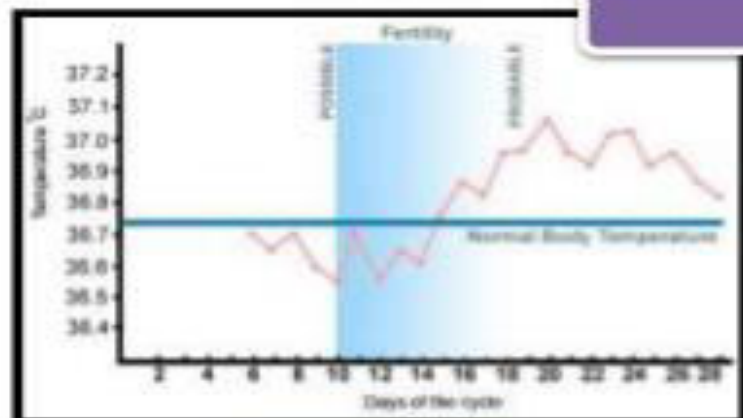
Coitus interruptus



LAM



Symptothermic

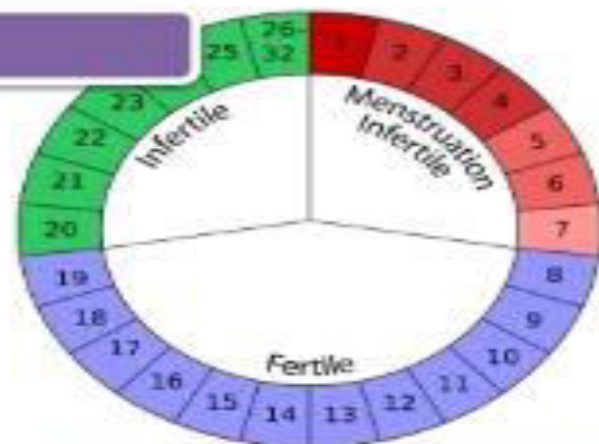


BBT



Slippery cervical mucus
(avoid sexual intercourse)

Cervical mucus



Rhythm/safe period

Post-coital or Emergency

LVG pills



Cu T



Combined OCP

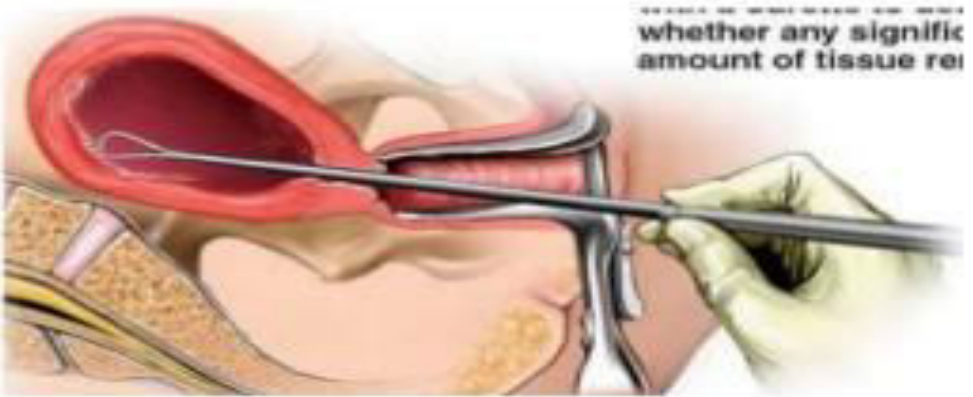
MIFEPRISTONE
200 mg tablet / comprimé

linepharm

Mifepristone

Post-conception

MTP by surgery



whether any significant amount of tissue re

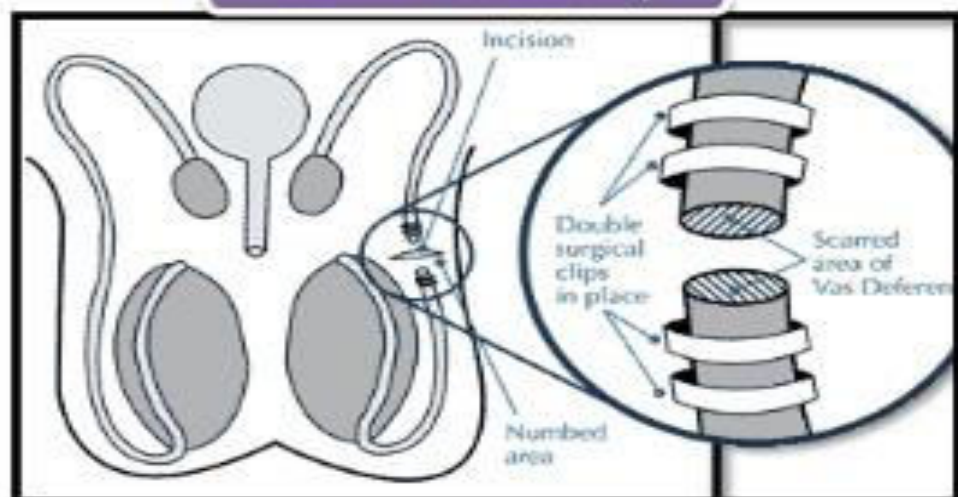
Menstrual regulation



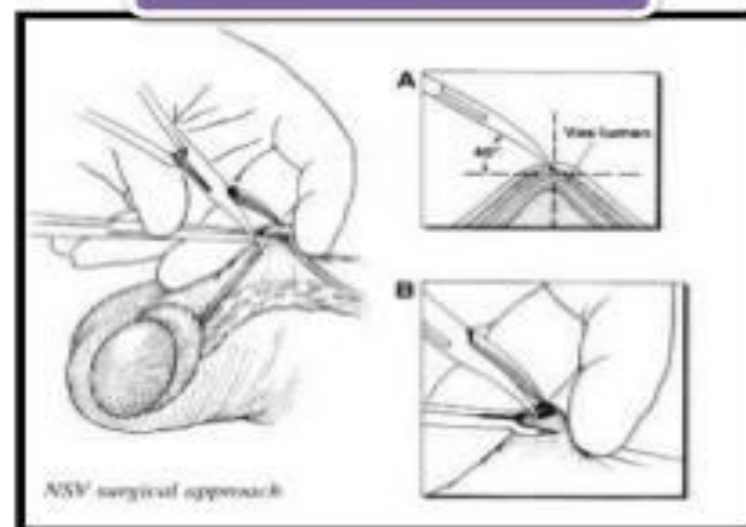
MTP by drugs

Terminal

Conv. Vasectomy



NSV



Minilap



Laparoscopy

Comparing Effectiveness

More effective

Less than 1 pregnancy per 100 women in one year



Implants



IUD



Female Sterilization



Vasectomy



Injectables



LAM



Pills



Male or Female Condoms



Diaphragm



Fertility Awareness Methods

Less effective

About 30 pregnancies per 100 women in one year



Withdrawal



Spermicides

SPACING METHODS:

- **1.Barrier methods:**

- **a)Physical Methods:**

- **i)condom:**

- It is an **effective, simple spacing method of contraception, without side effects. To preventing pregnancy, condom protects both me and women from sexually transmitted diseases.**

- Female condom is a **pouch made of polyurethane**, which lines the vagina. Pouch covers the cervix and an external ring remains outside the vagina.



Squeeze tip of condom so no air is trapped inside and continue to hold tip while unrolling condom to base of penis



Rolled latex condom

ADAM.



Closed end

Open end



Female condom

ADAM.

condom

Advantage:

- Easily available
 - Safe and inexpensive
 - Easy to use
 - No side effects
 - Provides protection not only against pregnancy also STD.
-

Disadvantage:

- It may slip off or tear during coitus due to incorrect use
- Interferes with sex sensation

– **ii)Diaphragm:**

The diaphragm is a vaginal barrier. Also known as “**dutch cup**”. It is a shallow cup made of **synthetic rubber or plastic material**. It ranges in **diameter from 5-10 cm (2-4 inch)**. It has a **flexible rim made of spring or metal**.

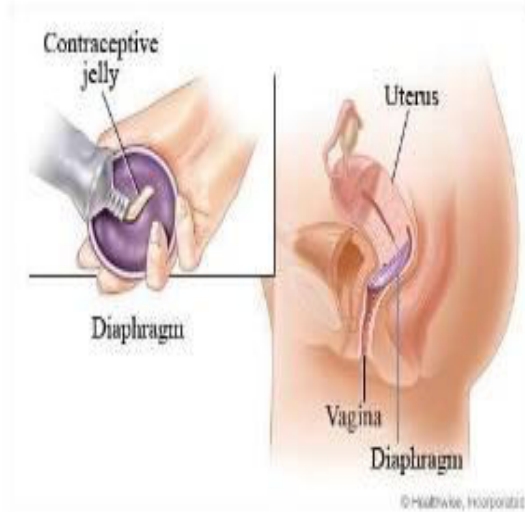
Advantage:

- Total absence of risks and medical contraindications.

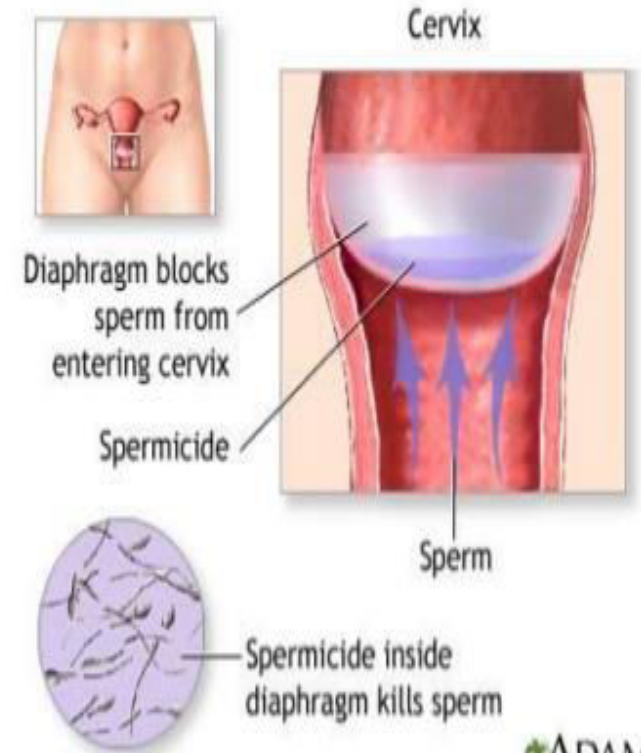
Disadvantage:

- Initially trained person will be needed to demonstrate the technique of inserting the diaphragm into the vagina and o ensure a proper fit.

insertion



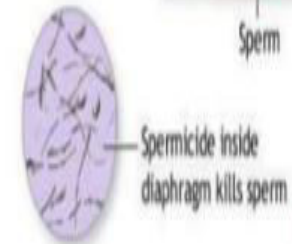
Mode of action



Cervical Cap



Barrier method:
The cervical cap fits snugly over the cervix, preventing sperm from entering the uterus



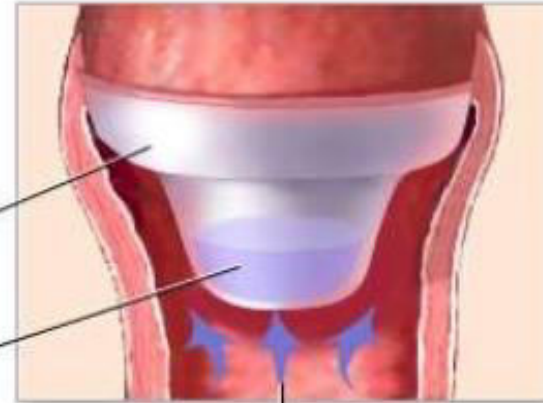
ADAM

The cervical cap is a flexible rubber cup-like device that is filled with spermicide and self-inserted over the cervix prior to intercourse. The device is left in place several hours after intercourse. The cap is a prescribed device fitted by a health care professional and can be more expensive than other barrier methods, such as condoms.



Cervical cap blocks sperm from entering cervix

Spermicide



Sperm



Spermicide inside diaphragm kills sperm

ADAM

iii)Vaginal sponge:

- it is a small polyurethane foam sponge measuring 5cm- 2.5cm, saturated with the spermicide, nonoxynol- 9.
-

b)Chemical methods:

- foams: foam tablets, foam aerosols
- creams, jellies and pastes- squeezed from a tube
- suppositories- inserted manually
- soluble films- c- film inserted manually.

Drawbacks:

- High failure rate
- Used almost immediately before intercourse and repeated before each sex.
- Mild burning or irritation

Vaginal sponge

Sponge



Sponge absorbs sperm, preventing them from entering cervix



Sperm



Spermicide inside diaphragm kills sperm



ADAM.

The sponge is inserted by the woman into the vagina and covers the cervix blocking sperm from entering the cervix. The sponge also contains a spermicide that kills sperm. It is available without a prescription

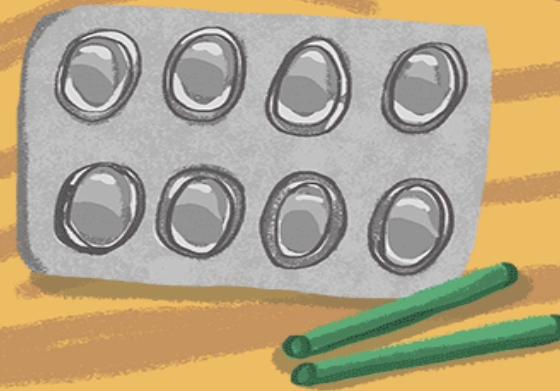
The 6 Types of Spermicide



Spermicidal foam



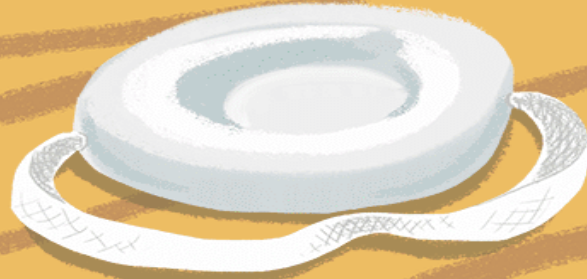
Contraceptive film



Contraceptive inserts, tablets, or suppositories



Spermicidal jelly



Contraceptive sponge



Spermicidal creams and gels

2. Intra-Uterine devices:

- Its non medicated and medicated. Both are usually made of polyethylene or other polymers. The medicated or bioactive IUDs release either metal ions (copper) or hormones (progestogens).

FIRST GENERATION'S IUD:

Lippes loop is double- S shaped device made of polyethylene, a plastic material that is non-toxic, non-tissue reactive and extremely durable.

The loop has attached threads or tail made of fine nylon.

The lippes loop exists in four sizes A,B,C, and D.

The larger loops C and D more suitable for multiparous women.



SECOND GENERATION'S IUD:

- Earlier devices:

- Copper – 7

- Copper – T- 200

- Newer devices:

- T Cu-220 C

- T Cu-380 A or Ag

- Nova T

- Multiload devices

- ML-CU-250

- ML-CU-375

Intra uterine contraceptive devices



I

Non medicated



II

Copper, silver



III

Hormone

ADVANTAGE OF COPPER DEVICES:

- Low expulsion rate
- Lower incidence of side effects . E,g. pain and bleeding.
- Easier to fit even nulliparous women.
- Better tolerated by nullipara.
- Increased contraceptive effectiveness.
- Effective as post-coital contraceptives, if inserted within 3-5 days of unprotected intercourse.

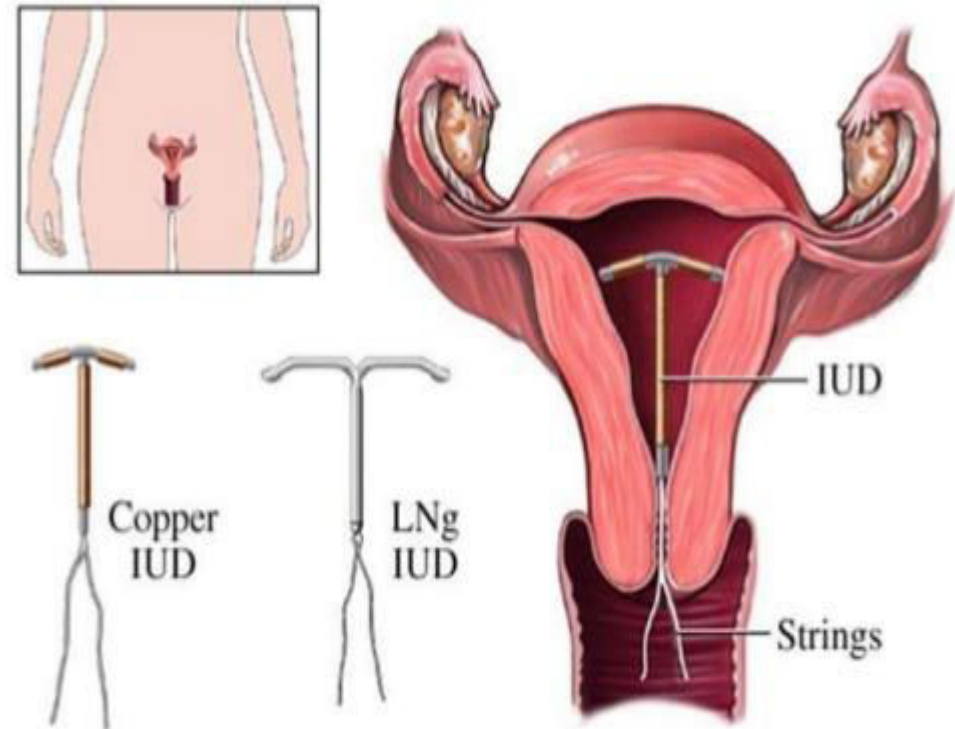
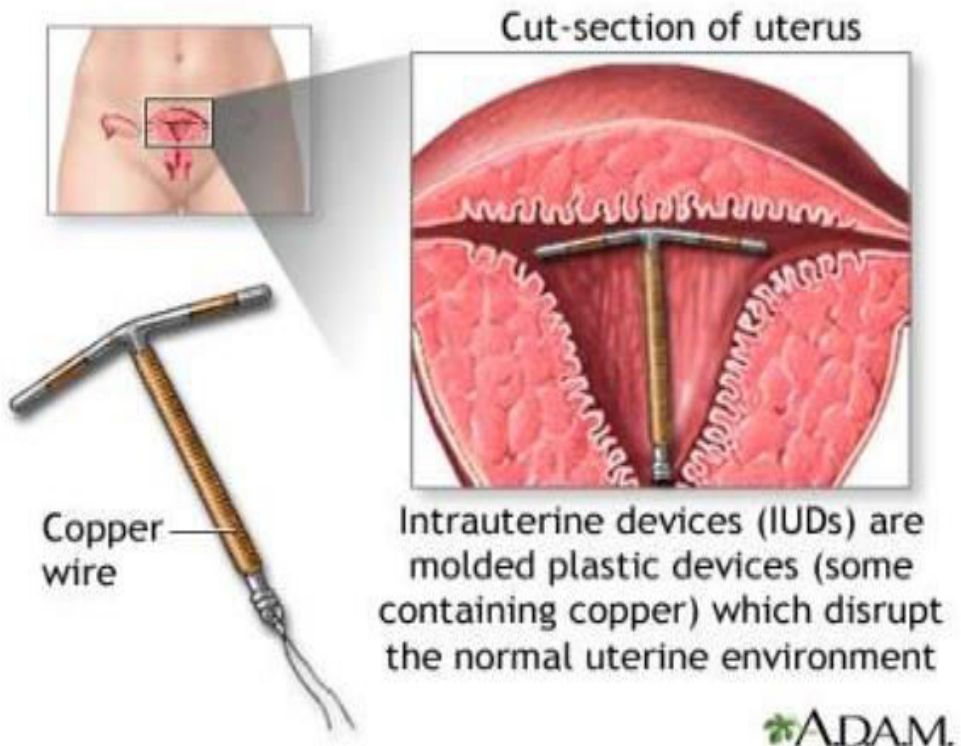
The ideal IUD candidate:

PPFA – The planned parenthood federation of America:

- Who has borne at least one child.
- Has no history of pelvic disease.
- Has normal menstrual periods.
- Is willing check the IUD tail.
- Has access to follow-up and treatment of potential problems.
- Is in a monogamous relationship.

THIRD GENERATION'S IUD:

- The most widely used hormonal device is progestogen, which is a T shaped device filled with 38 mg of progesterone, the natural hormone. The hormone is released slowly in the uterus at the rate of 65 mcg daily.
- Another hormonal devices LNG-20 (mirena) is a T-shaped IUD releasing 20 mcg of levonorgestrel (a potent synthetic steroid). It has a low pregnancy rate and less number of ectopic pregnancies.



IUD:

Advantage:

- Simplicity
 - Insertion takes only a few minutes
 - Inexpensive
 - Contraceptive effect is reversible by removal of IUD
 - Highest continuation rate
-

Contraindication:

- **Absolute:**
- Suspected pregnancy
- Pelvic inflammatory diseases
- Vaginal bleeding
- Cancer of the cervix
- Previous ectopic pregnancy



Relative:

- **Anaemia**
- **Menorrhagia**
- **History of PID since last pregnancy**
- **Purulent cervical discharge**
- **Unmotivated persons**

Timing of insertion:

- Inserted at almost anytime during a women's reproductive years (except during pregnancy).
- The most propitious time for loop insertion is during menstruation or within 10 days of the beginning of menstrual period.

Follow –up:

Objective of follow-up:

- To provide motivation and emotional support for the women.
 - To confirm the presence of the IUD.
 - Diagnose and treat any side effects or complication.
 - The IUD wearer should be examined after her first menstrual period.
-

FOLLOWING INSTRUCTIONS:

- Regularly check the threads or tail to be sure that the IUD is in the uterus. If she fail to locate the threads she must consult the doctor.
- Assess side effects such as fever, pelvic pain and bleeding.
- Missed periods.

Side effects and complications:

- ✓ Bleeding
- ✓ Pelvic pain
- ✓ Pelvic infection
- ✓ Uterine perforation
- ✓ Pregnancy
- ✓ Ectopic pregnancy
- ✓ Expulsion
- ✓ Fertility after removal
- ✓ Cancer and teratogenesis
- ✓ mortality

HORMONAL CONTRACEPTIVES

- The most effective spacing methods of contraception.
- Oral contraceptives of the combined type are almost 100% effective in preventing pregnancy.
- More than 65 million in the world are estimated to be taking the “pill” of which about 9.52 million are estimated to be in India.



3.Hormonal methods:

- **Oral pills**

- **Combined pill**

- **Progestogen only pill (pop)**

- **Post-coital pill**

- **Once- a- month (long acting) pill**

- **Male pill**

- **Depot (slow release) formulations**

- **Injectable**

- **Subcutaneous implants**

- **Vaginal rings**

A. ORAL PILLS:

1. Combined pill:



- The combined pill is one of the major spacing methods of contraception.
- It contains no more than 30-35 mcg of a synthetic oestrogen, and 0.5-1.0 mg of a progestogen.
- The pill is given orally for 21 consecutive days beginning on the 5th day of the menstrual cycle (for a few preparations 20 or 22 days are advised), followed by a break of 7 days during which period menstruation occurs.
- The pill should be taken everyday at a fixed time, preferably before going to bed at night. The first course should be started strictly on the 5th day of the menstrual cycle.

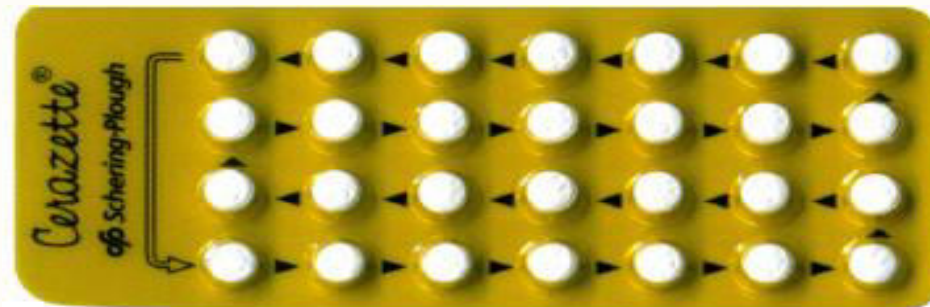
Types of pills:

- The department of family welfare, in the ministry of health and family welfare, government of India had made available 2 types of low-dose oral pills under the brand names of MALA-N and MALA-D.
- It contains levonorgestrel 0.15 mg and ethinyl estradiol 0.03mg.
- **MALA-D** in a package of 28 pills (21 of oral contraceptive pills and 7 brown film coated 60 mg ferrous fumarate tablets) is made available to the consumer under social marketing at a price of Rs. 3 per packets.
- **MALA-N** is supplied free of cost through all PHC's, under family welfare centres etc.



2. Progestogen-only pill (pop):

- ❑ The pill is commonly referred to as “minipill” or “micropill”.
- ❑ It contains only progestogen, which is given in small doses throughout the cycle.
- ❑ The commonly used progestogens are norethisterone and levonorgestrel.
- ❑ Prescribed to older women for whom the combined pill is contraindicated because of cardiovascular risks.



3. Post-coital contraception:

Post-coital (or “morning alert”) contraception is recommended within 72 hours of an unprotected intercourse.

Two methods are available:

a) IUD: The simplest techniques is to insert an IUD, if acceptable, especially a copper device within 5 days.

b) Hormonal: levonorgestrel 0.75 mg tablet is approved for emergency contraception. It is used as one tablet of 0.75 mg within 72 hours of unprotected sex and the 2nd tablet after 12 hours of 1st dose.

or

Two oral contraceptive pills containing 50 mcg of ethinyl estradiol within 72 hours after intercourse, and the same dose after 12 hours.

or

Four oral contraceptive pills containing 30 or 35 mcg of ethinyl estradiol within 72 hours after intercourse, and 4 tablets after 12 hours.

or

Mifepristone 10 mg once within 72 hours.



4. Once-a-month (long acting) pill:

- Experiments with Once-a-month (long acting) pill in which quinestrol, a long acting oestrogen is given in combination with a short acting progestogen, have been disappointing.
- The pregnancy rate is too high to be acceptable. In bleeding tends to be irregular.

5. Male pill:

- Preventing spermatogenesis
- Interfering with sperm storage and maturation
- Preventing sperm transport in the vas.
- Affecting constituents of the seminal fluid.

Risk and benefits:



Adverse effects:

- Cardiovascular effects
- Carcinogenesis
- Metabolic effects
- Liver disorders
- Lactation
- Subsequent fertility
- Ectopic pregnancy
- Common unwanted effects (breast tenderness, weight gain, headache and migraine, bleeding).

Beneficial effects:

- Ovarian cysts
- Iron deficiency anemia
- Fibrocystic diseases and fibroadenoma
- Pelvic inflammatory diseases
- Ectopic pregnancy
- Ovarian cancer.

Contraindications:

a) Absolute:

- cancer of the breast and genitals
- Liver diseases
- Previous or present history of thromboembolism
- Cardiac abnormalities
- congenital hyperlipidaemia
- Undiagnosed abnormal uterine bleeding.



b) Special problems:

- Mild hypertension
 - Chronic renal disease
 - Epilepsy
 - Migraine
 - Lactating mother
 - Diabetes mellitus
 - Gall bladder diseases
 - History of infrequent bleeding
 - Amenorrhoea
-

B. DEPOT FORMULATIONS:

Highly effective, reversible, long acting and oestrogen-free for spacing pregnancies in which a single administration suffices for several months or years cannot be stressed.

1. INJECTABLE CONTRACEPTIVES:

a) progestogen-only injectables

b) Combined injectable contraceptives



a) progestogen-only injectables

- i. DMPA (Depot-medroxyprogesterone acetate): the standard dose is an intramuscular injection of 150 mg every 3 months. It is highly expensive.
- ii. NET-EN (Norethisterone enantate): it has been less extensively used than DMPA. It is given intramuscularly in a dose of 200mg every 60 days. It should be given during the first 5th days of the menstrual. Both DMPA and NET-EN may be given two week early or two weeks late.
- iii. DMPA-SC: a new lower-dose formulation of DMPA, depo-subQ provera 104 (also called DMPA-SC), is injected under the skin rather than in the muscle. It contains 104mg of DMPA rather than the 150mg in the intramuscular formulation. DMPA-SC is given at 3 month intervals.

b) Combined injectable contraceptives:

- It contain a progestogen and an oestrogen.
- They are given at monthly intervals, plus or minus three days.
- Combined injectable contraceptive act mainly by suppression of ovulations.



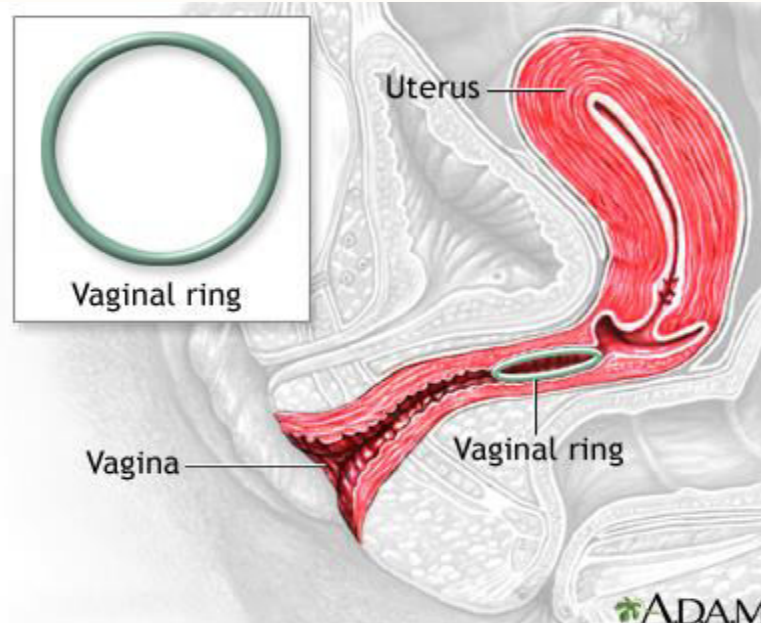
2. Subdermal implants:

- ❑ Subdermal implant known as Norplant for long term contraception. It consists of 6 silastic (silicone rubber) capsules containing 35 mg (each) of levonorgestrel.
- ❑ Norplant (R) -2 which are comparatively easier to insert and remove.



3. Vaginal rings:

- It containing levonorgestrel have been found to be effective. The hormone is slowly absorbed through the vaginal mucosa, permitting most of it to bypass the digestive system and liver, and allowing a potentially lower dose.
- The ring is worn in the vagina for 3 weeks of the cycle and removed for the fourth.





4. Post-conceptual methods:

- **Menstrual regulation:**

- A relatively simple method of birth control is menstrual regulation. It consists of aspiration of the uterine content 6 to 14 days of a missed period, but before most pregnancy tests can accurately determine whether or not a woman is pregnant.

- The immediate complications are uterine perforation and trauma. Late complications are tendency to abortion or premature labour, infertility, menstrual disorders, increase in ectopic pregnancies and rh- immunization.

Menstrual induction:

- It is based on disturbing the normal progesterone-prostaglandin balance by intrauterine application of 1-5 mg solution of prostaglandin F₂. The bleeding starts and continues for 7-8 days.

ABORTION:

- It is as termination of pregnancy before the foetus becomes viable (capable of living independently). This has been fixed administratively at 28 weeks, when the foetus weighs approximately 1000g.



- **Early complication:**

- Haemorrhage, shock, sepsis, uterine perforation, cervical injury, thromboembolism and anaesthetic and psychiatric complications.

- Late sequelae include infertility, ectopic gestation, increased risk of spontaneous abortion and reduced birth weight.

- **Approval by board:**

- The chief medical officer of the district to certified that a doctor to do abortion. The procedure of doctors applying to certifications boards was removed.



Qualification required to do abortion:

- It assisted 25 case a RMP in the performance.
- 6 months housemanship in obg
- A post graduate qualification in obg
- 3 years of practice in OG doctor registered before the 1971 MTP act was passed.
- 1 year of practice in OBG for those doctor registered on or after the date of commencement of the act.



5. Miscellaneous:

- a) Abstinence:
 - b) Coitus interruptus
 - c) Safe period (Rhythm method)
 - d) Natural family planning methods
 - basal body temperature method (BBT)
 - cervical mucus method
 - symptothermic method
 - e) Breast feeding
 - f) Birth control vaccine.
-

1.Abstinence:

The only method of birth control which is completely effective is complete sexual abstinence. It is sound in theory. In practice, an oversimplification.

2.Coitus interruptus:

This is the oldest method of voluntary fertility control. It involves no cost or appliances. The male withdraws before ejaculation, and thereby tries to prevent disposition of semen into the vagina.

3.Safe period (rhythm method):

This is also known as the “calendar method” first described by Ogino in 1930.

The method is based on the fact that ovulation occurs from 12 to 16 days before the onset of menstruation. The shortest cycle minus 18 days gives the first day of the fertile period. The longest cycle minus 10 days gives the last day of fertile period.

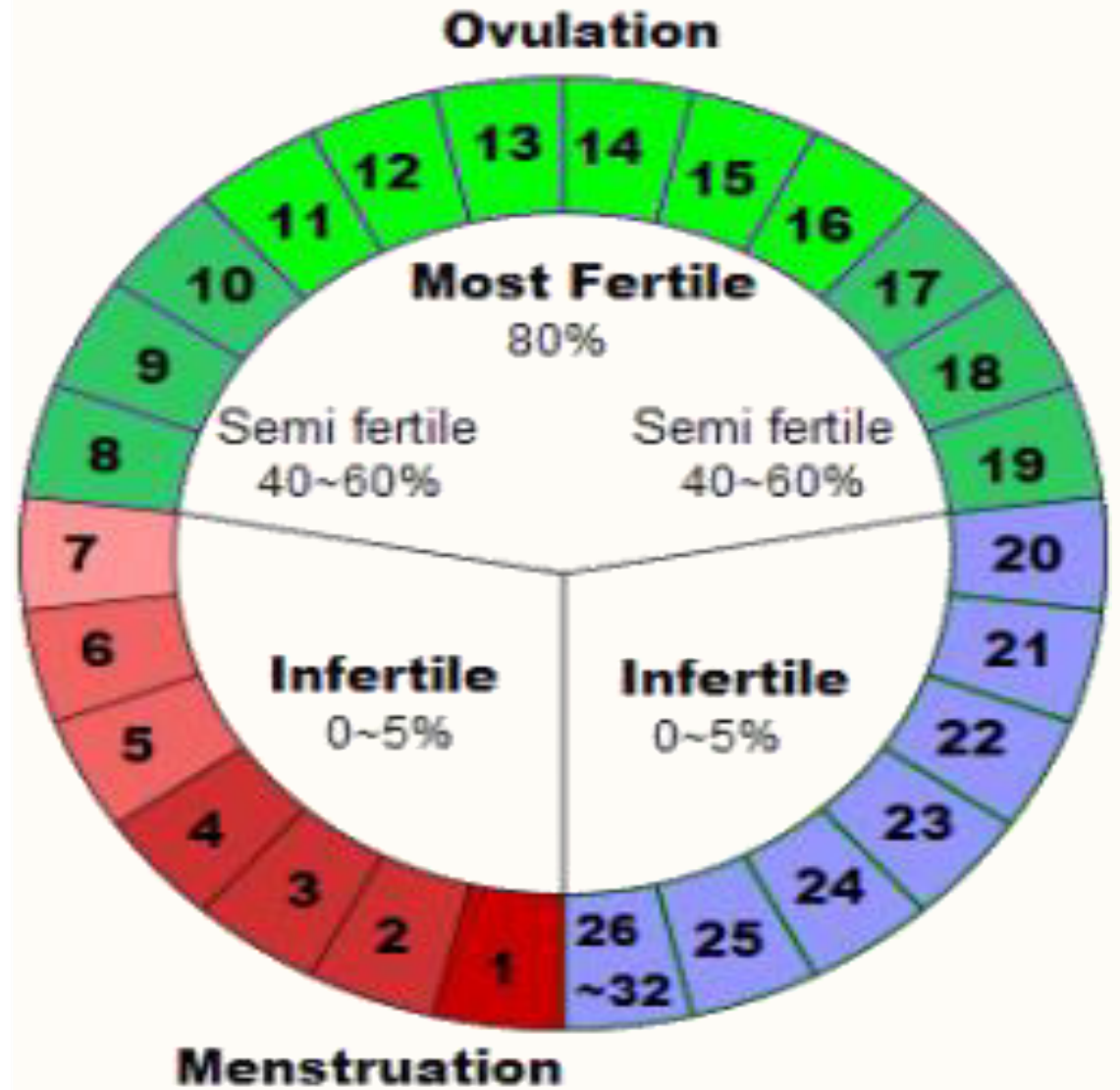
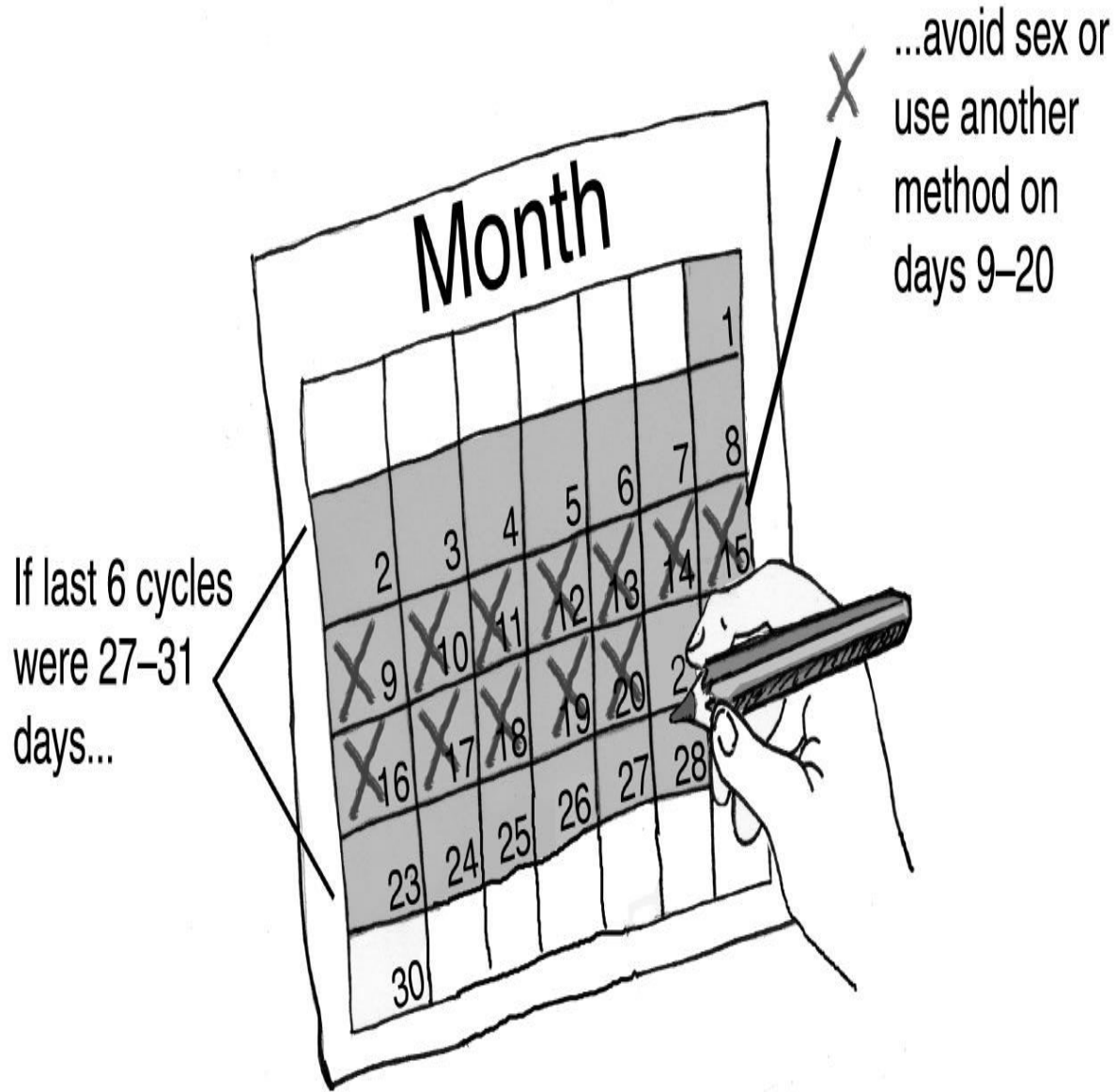
Drawback of safe period:

Menstrual cycle are not always regular, if irregular, it is difficult to predict the safe period.

Used by educated and responsible couple with a high degree of motivation and cooperation.

Compulsory abstinence of sexual intercourse for nearly one half of every month- what may be called “programmed sex”. This method not applicable for postnatal period. High failure rate.

Safe period (rhythm method):





4. Natural family planning methods:

a) basal body temperature method (BBT): In time of ovulation, increase the production of progesterone. The rise of temperature is very small, 0.3 to 0.5 degree C.

b) cervical mucus method: This is also known as “billings method or ovulation method”. The observation of changes in the characteristics of cervical mucus.

c) sympto-thermic method: Combines the temperature, cervical mucus and calendar techniques for identifying the fertile period.

5. Breast feeding:

Field and laboratory investigations have confirmed the traditional belief the lactating prolongs postpartum amenorrhoea and provides some degree of protection against pregnancy.

No more than 5-10% of women conceive during lactational amenorrhoea, and even the risk of exists only during the month preceding the resumption of menstruation.

6. Birth control vaccine:

Advanced research involves immunization with a vaccine prepared from beta sub-unit of human chorionic gonadotropin (hCG), a hormone produced in early pregnancy.

Terminal methods

- Voluntary sterilization is a well established contraceptive procedure for couples desiring no more children. Currently female sterilization account for about 85% and male sterilization for 10-15% of all sterilization in India.
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ADVANTAGE:

- It is a one time method
- Provides the most effective protection against pregnancy.
- It is most cost effective.

Guidelines for sterilization:

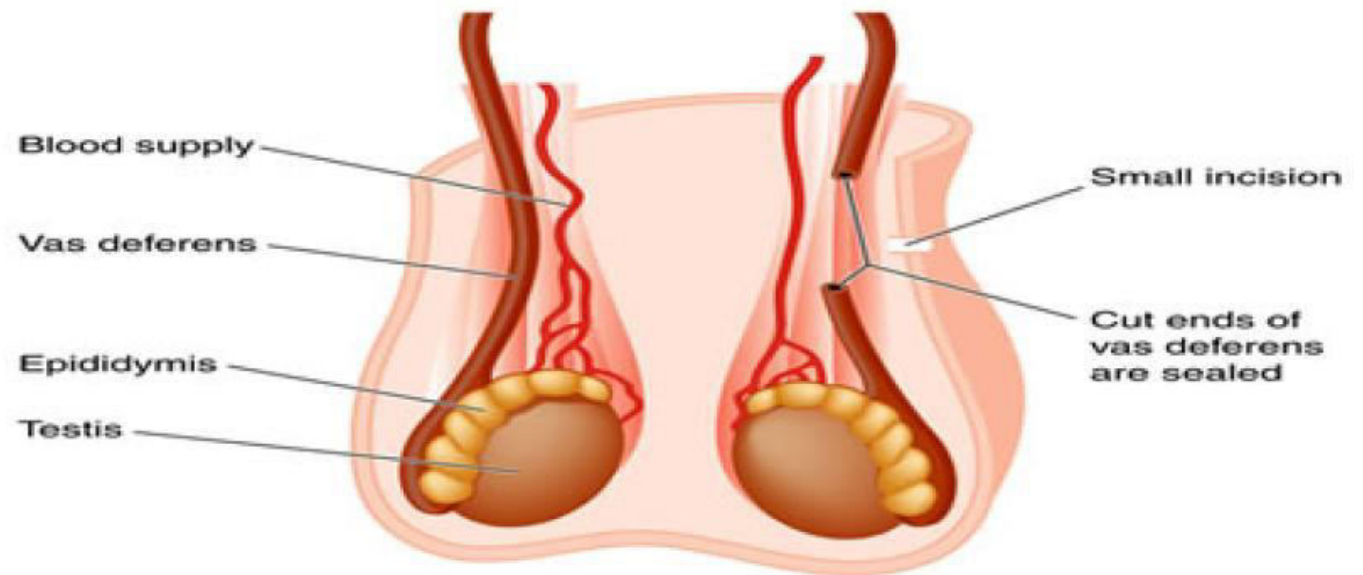
- The age of the husband should not ordinarily be less than 25 years nor should it be over 50 years.
- The age of the wife should not be less than 20 years or more than 45 years.
- The motivated couple must have 2 living children at the time of operation.
- If the couple has 3 or more living children, the lower limit of age of the husband or wife may be relaxed at the discretion of the operating surgeon.

Male sterilization:

- Male sterilization or vasectomy being a comparatively simple operation can be performed even in primary health centres by trained doctors under local anaesthesia.
- Vasectomy is a simpler, faster and less expensive operation than tubectomy in terms of instruments, hospitalization and doctor's training.
- Cost-wise, the ratio is about 5 vasectomies to one tubal ligation.

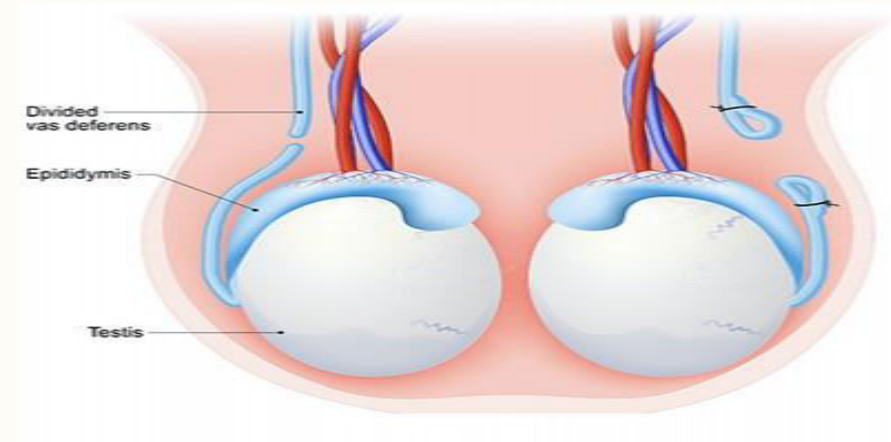
COMPLICATIONS:

- Operative pain
- Sperm granules
- Spontaneous recanalization
- Autoimmune response
- Psychological changes



Post operative advice:

- The patient should be told that he is not sterile immediately after the operation; at least 30 ejaculations may be necessary before he seminal examination is negative.
- To use contraceptive until aspermia has been established.
- To avoid taking bath for at least 24 ours after the operation.
- To wear T- bandage or scrotal support (langot) for 15 days
- To keep the site clean and dry.
- To avoid cycling or lifting heavy weights for 15 days. No need for complete bed rest.
- To have the stitches remove on the 5th day after the operation.



No scalpel vasectomy

- No scalpel vasectomy is a new technique that is safe, convenient and acceptable to males.
- Now being canvassed for men as a special project, on a voluntary basis under the family welfare programme.
- Under the project, medical personnel all over the country are to be trained.
- Available of the new technique at the peripheral level will increase the acceptance of male sterilization in the country.
- The project is being funded by the UNFPA.

Female sterilization:

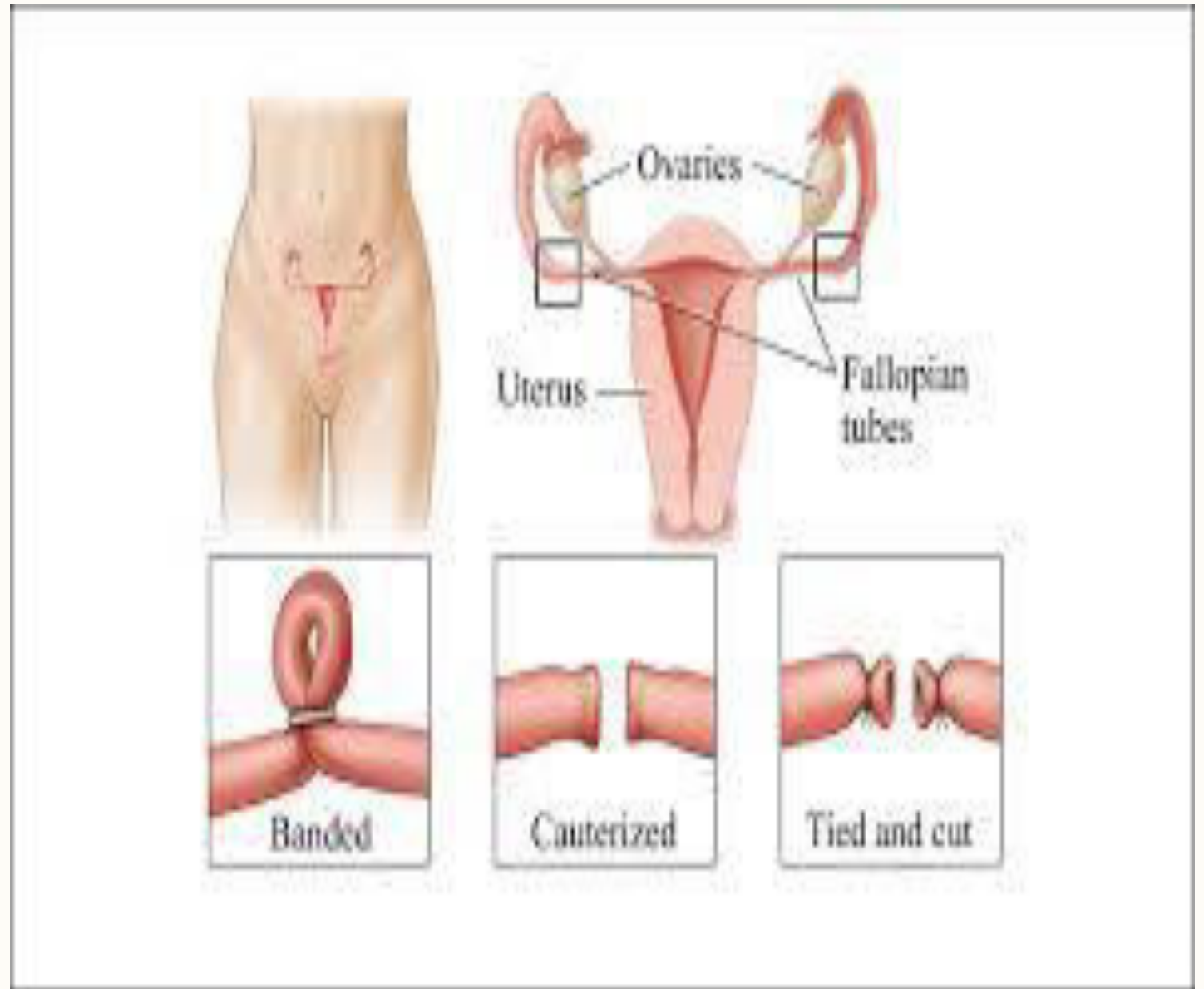
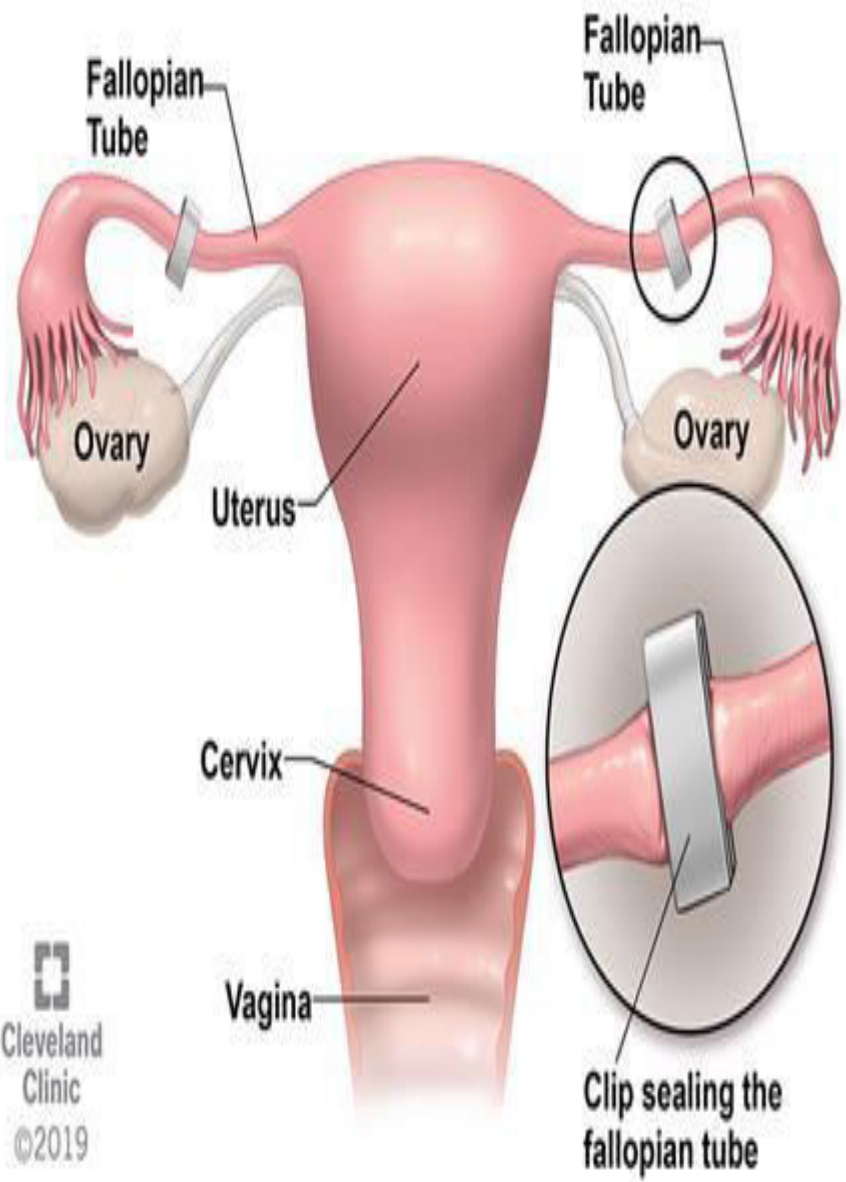
Female sterilization can be done as an interval procedure, postpartum or at the time of abortion. Two procedures have become most common, namely laparoscopy and minilaparotomy.

a) laparoscopy:

This is a technique of female sterilization through abdominal approach with a specialized instrument called “laparoscope”.

The abdomen is inflated with gas (carbon dioxide, nitrous oxide or air) and the instrument is introduced into the abdominal cavity to visualize the tubes.

The short operating time, shorter stay in hospital and a small scar are some of the attractive features of these operations.





b) minilaparotomy:

Minilaparotomy is a modification of abdominal tubectomy. It is a much simpler procedure requiring a smaller abdominal incision of only 2.5-3cm conducted under local anaesthesia.

It has the advantage over other methods with regards to safety, efficiency and ease in dealing with complications. Minilap operation is suitable for postpartum tubal sterilization.

THANK YOU..
